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         AUG 15 CAplus currency for Korean patents enhanced
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                 comprehensive access to substance and sequence
                 information
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                 Support for STN Express, Versions 6.01 and earlier,
                 to be discontinued
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                 to accommodate supplemental CAS indexing of
                 exemplified prophetic substances
NEWS 13
         SEP 26 WPIDS, WPINDEX, and WPIX coverage of Chinese and
                 and Korean patents enhanced
NEWS 14
         SEP 29
                 IFICLS enhanced with new super search field
NEWS 15 SEP 29 EMBASE and EMBAL enhanced with new search and
                 display fields
NEWS 16
         SEP 30 CAS patent coverage enhanced to include exemplified
                 prophetic substances identified in new Japanese-
                 language patents
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         OCT 07 EPFULL enhanced with full implementation of EPC2000
NEWS 18
         OCT 07 Multiple databases enhanced for more flexible patent
                 number searching
         OCT 22 Current-awareness alert (SDI) setup and editing
NEWS 19
                 enhanced
                 WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT
NEWS 20
         OCT 22
                 Applications
NEWS 21 OCT 24
                 CHEMLIST enhanced with intermediate list of
                 pre-registered REACH substances
NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
             AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.
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chain nodes :

15 16 17 18 19 25 26 27 28 29 30 31

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 20 21 22 23 24

chain bonds :

13-15 15-16 15-29 16-17 17-18 17-25 18-19 18-31 19-20 24-30 25-26 26-27 26-28 ring bonds:

exact/norm bonds :

exact bonds :

13-15 17-18 17-25 25-26 26-27 26-28

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6

Match level:

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS 19:CLASS 20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS 31:CLASS

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100.0% PROCESSED 0 ITERATIONS 0 ANSWERS

SEARCH TIME: 00.00.01

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FULL SEARCH INITIATED 14:20:12 FILE 'REGISTRY'
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100.0% PROCESSED 31 ITERATIONS 15 ANSWERS

SEARCH TIME: 00.00.01

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=> s 13

L4 8 L3

=> d 14 1-8 ibib abs hitstr

L4 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1022710 CAPLUS

DOCUMENT NUMBER: 147:357234

TITLE: Composition containing amidine derivatives or

carboxamide derivatives and steroids, as a medicament

INVENTOR(S): Pignol, Bernadette; Auvin, Serge; Bigg, Dennis;

Chabrier de Lassauniere, Pierre-Etienne

PATENT ASSIGNEE(S): Societe de Conseils de Recherches et d'Applications

Scientifiques (S.C.R.A.S.), Fr.

SOURCE: PCT Int. Appl., 42pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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DATE
                                           APPLICATION NO.
                                                                 DATE
    PATENT NO.
                       KIND
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    WO 2007101937
                               20070913
                                         WO 2007-FR390
                        A1
                                                                  20070306
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
            GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN,
            KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN,
            MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS,
            RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ,
            UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
            GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
            BY, KG, KZ, MD, RU, TJ, TM
    FR 2898274
                               20070914
                                           FR 2006-2000
                                                                  20060307
                         Α1
                               20081003
    FR 2898274
                         В1
PRIORITY APPLN. INFO.:
                                           FR 2006-2000
                                                               A 20060307
                        MARPAT 147:357234
OTHER SOURCE(S):
    The present invention relates to a composition containing at least one amidine
    derivative or carboxamide derivative (Markush included) in combination with at
    least one compound chosen from steroids, corticoids or corticosteroids,
    wherein the composition is suitable for the preparation of a medicament.
Compound
    preparation is included.
     339007-48-6 339007-48-6D, salts 339007-76-0
ΙT
    339007-76-0D, salts 742104-24-1 742104-24-1D,
    salts 866006-13-5 866006-13-5D, salts
    866006-14-6 866006-14-6D, salts 866006-16-8
    866006-16-8D, salts 866006-17-9 866006-17-9D,
    salts
    RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (amidine derivative or carboxamide derivative combination with steroid for
        therapeutic)
```

(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX

Absolute stereochemistry.

NAME)

339007-48-6 CAPLUS

RN

CN

RN 339007-48-6 CAPLUS
CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[(2S,3S)-2-

RN 339007-76-0 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(2R,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 339007-76-0 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(2R,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 742104-24-1 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 742104-24-1 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

RN 866006-13-5 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-3-methyl-1-[[[(2S,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 866006-13-5 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-3-methyl-1-[[[(2S,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 866006-14-6 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-3-methyl-1-[[[(2R,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 866006-14-6 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-3-methyl-1-[[[(2R,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

RN 866006-16-8 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1R)-3-methyl-1-[[[(2S,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 866006-16-8 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1R)-3-methyl-1-[[[(2S,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 866006-17-9 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1R)-3-methyl-1-[[[(2R,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 866006-17-9 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1R)-3-methyl-1-[[[(2R,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:452302 CAPLUS

DOCUMENT NUMBER: 147:64455

TITLE: A novel dual inhibitor of calpains and lipid

peroxidation (BN82270) rescues the cochlea from sound

trauma

AUTHOR(S): Wang, Jing; Pignol, Bernadette; Chabrier,

Pierre-Etienne; Saido, Takaomi; Lloyd, Ruth; Tang,

Yong; Lenoir, Marc; Puel, Jean-Luc

CORPORATE SOURCE: Laboratoire de Physiopathologie et Therapie des

Deficits Sensoriels et Moteurs, INSERM U583,

Montpellier, Fr.

SOURCE: Neuropharmacology (2007), 52(6), 1426-1437

CODEN: NEPHBW; ISSN: 0028-3908

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Free radical and calcium buffering mechanisms are implicated in cochlear cell damage that has been induced by sound trauma. Thus in this study we evaluated the therapeutic effect of a novel dual inhibitor of calpains and of lipid peroxidn. (BN 82270) on the permanent hearing and hair cell loss induced by sound trauma. Perfusion of BN 82270 into the scala tympani of the guinea pig cochlea prevented the formation of calpain-cleaved fodrin, translocation of cytochrome c, DNA fragmentation and hair cell degeneration caused by sound trauma. This was confirmed by functional tests in vivo, showing a clear dose-dependent reduction of permanent hearing loss (ED50 = 4.07 μM) with almost complete protection at 100 μM . Furthermore, BN82270 still remained effective even when applied onto the round window membrane after sound trauma had occurred, within a therapeutic window of 24 h. This indicates that BN 82270 may be of potential therapeutic value in treating the cochlea after sound trauma.

IT 742104-24-1, BN 82270

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(novel dual inhibitor of calpains and lipid peroxidn. (BN82270) rescues the cochlea from sound trauma)

RN 742104-24-1 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

REFERENCE COUNT: 96 THERE ARE 96 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:325817 CAPLUS

DOCUMENT NUMBER: 146:372657

TITLE: Calpain inhibitors and antioxidants act

synergistically to prevent cell necrosis: effects of the novel dual inhibitors (cysteine protease inhibitor and antioxidant) BN 82204 and its pro-drug BN 82270.

[Erratum to document cited in CA146:075148]

AUTHOR(S): Pignol, Bernadette; Auvin, Serge; Carre, Denis; Marin,

Jean-Gregoire; Chabrier, Pierre-Etienne

CORPORATE SOURCE: Department of Neurobiology, Ipsen Research

Laboratories, Les Ulis, Fr.

SOURCE: Journal of Neurochemistry (2007), 100(5), 1430

CODEN: JONRA9; ISSN: 0022-3042

PUBLISHER: Blackwell Publishing Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB On page 1224, right column, second full paragraph, line 2, "BHT-PD150606" should read: "BHT+PD150606". On page 1224, right column, second full paragraph, line 2, "BHT+calpeptin" should read: "BHT+calpeptin". On page 1224, right column, second full paragraph, line 3,

"4-hydroxydiphenylamine++Z-Leu-Leu-H" should read:

"4-hydroxydiphenylamine+Z-Leu-Leu-H". On page 1224, right column, second full paragraph, line 3, "BHT-Z-Leu-Leu-H" should read: "BHT+Z-Leu-Leu-H".

IT 339007-47-5, BN 82204 742104-24-1, BN 82270

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(use of calpain inhibitors and antioxidants in combination or single BN 82204 and its pro-drug BN 82270 with multiple activities to prevent cell necrosis (Erratum))

RN 339007-47-5 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-3-methyl-1-[[[(3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 742104-24-1 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1135981 CAPLUS

DOCUMENT NUMBER: 146:75148

TITLE: Calpain inhibitors and antioxidants act

synergistically to prevent cell necrosis: effects of the novel dual inhibitors (cysteine protease inhibitor and antioxidant) BN 82204 and its pro-drug BN 82270 Pignol, Bernadette; Auvin, Serge; Carre, Denis; Marin,

AUTHOR(S): Pignol, Bernadette; Auvin, Serge; Carre, Denis; Ma

Jean-Gregoire; Chabrier, Pierre-Etienne

CORPORATE SOURCE: Department of Neurobiology, Ipsen Research

Laboratories, Les Ulis, Fr.

SOURCE: Journal of Neurochemistry (2006), 98(4), 1217-1228

CODEN: JONRA9; ISSN: 0022-3042

PUBLISHER: Blackwell Publishing Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Cell death is a common feature observed in neurodegenerative disorders, and is often associated with calpain activation and overprodn. of reactive oxygen species (ROS). This study investigated the use of calpain inhibitors and antioxidants in combination to protect cells against necrosis. Maitotoxin (MTX), which induces a massive influx of calcium, was used to provoke neuronal cell death. This toxin increased, in a concentration-dependent manner,

both calpain activity and ROS formation. Calpain inhibitors or antioxidants inhibited MTX-induced necrosis only marginally (below 20%), whereas their association protected against cell death by 40-66% in a synergistic manner. BN 82204, which possesses both calpain-cathepsin L inhibitory and antioxidant properties, and its acetylated pro-drug BN 82270, totally protected cells at 100 μM . The pro-drug BN 82270, which had better cell penetration, was twice as effective as the active principle BN 82204 in protecting glioma C6 or neuroblastoma SHSY5Y cells against death. These results suggest the potential therapeutic relevance of using a single mol. with multiple activities (cysteine protease inhibitor/antioxidant), and warrant further in vivo investigations in models of neuronal disorders.

IT 339007-47-5, BN 82204 742104-24-1, BN 82270

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(use of calpain inhibitors and antioxidants in combination or single BN 82204 and its pro-drug BN 82270 with multiple activities to prevent cell necrosis)

RN 339007-47-5 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-3-methyl-1-[[[(3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

RN 742104-24-1 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:583794 CAPLUS

DOCUMENT NUMBER: 145:116788

TITLE: Treatment of rats with calpain inhibitors prevents

sepsis-induced muscle proteolysis independent of

atrogin-1/MAFbx and MuRF1 expression

AUTHOR(S): Fareed, Moin U.; Evenson, Amy R.; Wei, Wei; Menconi,

Michael; Poylin, Vitaliy; Petkova, Victoria; Pignol,

Bernadette; Hasselgren, Per-Olof

CORPORATE SOURCE: Department of Surgery, Harvard Medical School, Boston,

MA, USA

SOURCE: American Journal of Physiology (2006), 290(6, Pt. 2),

R1589-R1597

CODEN: AJPHAP; ISSN: 0002-9513 PUBLISHER: American Physiological Society

DOCUMENT TYPE: Journal LANGUAGE: English

Muscle wasting in sepsis is a significant clin. problem because it results AB in muscle weakness and fatigue that may delay ambulation and increase the risk for thromboembolic and pulmonary complications. Treatments aimed at preventing or reducing muscle wasting in sepsis, therefore, may have important clin. implications. Recent studies suggest that sepsis-induced muscle proteolysis may be initiated by calpain-dependent release of myofilaments from the sarcomere, followed by ubiquitination and degradation of the myofilaments by the 26S proteasome. In the present expts., treatment of rats with one of the calpain inhibitors calpeptin or BN82270 inhibited protein breakdown in muscles from rats made septic by cecal ligation and puncture. The inhibition of protein breakdown was not accompanied by reduced expression of the ubiquitin ligases atrogin-1/MAFbx and MuRF1, suggesting that the ubiquitin-proteasome system is regulated independent of the calpain system in septic muscle. When incubated muscles were treated in vitro with calpain inhibitor, protein breakdown rates and calpain activity were reduced, consistent with a direct effect in skeletal muscle. Addnl. expts. suggested that the effects of BN82270 on muscle

protein breakdown may, in part, reflect inhibited cathepsin L activity, in addition to inhibited calpain activity. When cultured myoblasts were transfected with a plasmid expressing the endogenous calpain inhibitor calpastatin, the increased protein breakdown rates in dexamethasone-treated myoblasts were reduced, supporting a role of calpain activity in atrophying muscle. The present results suggest that treatment with calpain inhibitors may prevent sepsis-induced muscle wasting. 742104-24-1, BN 82270

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(treatment of rats with calpain inhibitors prevents sepsis-induced muscle proteolysis independent of atrogin-1/MAFbx and MuRF1 expression)

RN 742104-24-1 CAPLUS

TΤ

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1075636 CAPLUS

DOCUMENT NUMBER: 143:339689

TITLE: Use of a phenothiazine derivative for preventing

and/or treating hearing loss

INVENTOR(S): Pignol, Bernadette; Puel, Jean-Luc; Auvin, Serge;

Chabrier de Lassauniere, Pierre-Etienne; Wang, Jing

PATENT ASSIGNEE(S): Societe de Conseils de Recherches et d'Applications

Scientifiques S.C.R.A.S., Fr.

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PA:	TENT	NO.		KIN	D	DATE			APPL	ICAT	ION :	NO.		D.				
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		MR,	ΝE,	SN,	TD,	ΤG												
FR 2867979					A1		20050930			FR 2004-3203					20040329			
FR	FR 2867979				В1		20060630											

EP	2560 1732 1732	567			A1 A1 B1	200	51006 61220 81008			005- 005-		20050325 20050325				
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		IS,	ΙΤ,	LI,	LT,	LU, MO	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR		
CN	1933	840			Α	200	70321	1	CN 2	005-	8000	9139		2	0050	325
JP	2007	5306	40		Τ	200	71101		JP 2	007-	5055	76		2	0050	325
US	2008	0275	034		A1	200	81106		US 2	006-	5949	60		2	0060	929
PRIORIT	Y APP	LN.	INFO	.:					FR 2	004-	3203			A 2	0040	329
									FR 2	004-	6404			A 2	0040	614
								,	WO 2	005-	FR71	3	,	W 2	0050	325

OTHER SOURCE(S): MARPAT 143:339689

AB The invention discloses the use of a phenothiazine derivative I (R = H, alkyl, aralkyl, etc.) for preparing a medicine for preventing and/or treating hearing loss.

Ι

IT 339007-47-5 339007-47-5D, derivs. 742104-24-1
 866006-13-5 866006-13-5D, derivs. 866006-14-6
 866006-14-6D, derivs. 866006-15-7 866006-15-7D
 , derivs. 866006-16-8 866006-16-8D, derivs.
 866006-17-9 866006-17-9D, derivs.
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(phenothiazine derivs. for prevention and/or treatment of hearing loss)

RN 339007-47-5 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-3-methyl-1-[[[(3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 339007-47-5 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-3-methyl-1-[[[(3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

RN 742104-24-1 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 866006-13-5 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-3-methyl-1-[[[(2S,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 866006-13-5 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-3-methyl-1-[[[(2S,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 866006-14-6 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-3-methyl-1-[[[(2R,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

RN 866006-14-6 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-3-methyl-1-[[[(2R,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 866006-15-7 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1R)-3-methyl-1-[[[(3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 866006-15-7 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1R)-3-methyl-1-[[[(3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 866006-16-8 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1R)-3-methyl-1-[[[(2S,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

RN 866006-16-8 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1R)-3-methyl-1-[[[(2S,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 866006-17-9 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1R)-3-methyl-1-[[[(2R,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 866006-17-9 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1R)-3-methyl-1-[[[(2R,3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:498592 CAPLUS

DOCUMENT NUMBER: 141:207514

TITLE: Novel dual inhibitors of calpain and lipid

peroxidation

AUTHOR(S): Auvin, Serge; Pignol, Bernadette; Navet, Edith; Pons,

Dominique; Marin, Jean-G.; Bigg, Dennis; Chabrier,

Pierre-E.

CORPORATE SOURCE: Department of Medicinal Chemistry, Ipsen Research

Laboratories, Institut Henri Beaufour, Les Ulis,

91966, Fr.

SOURCE: Bioorganic & Medicinal Chemistry Letters (2004),

14(14), 3825-3828

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:207514

GΙ

AB A series of mols. I (R1 = phenothiazin-1-yl, phenothiazin-2-yl, 1-benzyl-5-indolinylamino, etc., R2 = H; R1 = phenothiazin-2-yl, R2 = MeCO) with dual inhibitory activities on calpain and lipid peroxidn. were synthesized. These hybrid compds. were built on the calpain pharmacophore 2-hydroxytetrahydrofuran linked to a set of antioxidants via a L-leucine linker. I (R1 = phenothiazin-2-yl, R2 = MeCO), the most potent in cellular calpain and lipid peroxidn. inhibitions, provided effective protection against glial cell death induced by maitotoxin.

IT 339007-47-5P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(preparation of (peptidyl)(hydroxy)tetrahydrofurans as dual inhibitors of calpain and lipid peroxidn.)

RN 339007-47-5 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-3-methyl-1-[[[(3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

IT 742104-24-1P, BN 82270

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of (peptidyl)(hydroxy)tetrahydrofurans as dual inhibitors of calpain and lipid peroxidn.)

RN 742104-24-1 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(3S)-2-(acetyloxy)tetrahydro-

3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:338525 CAPLUS

DOCUMENT NUMBER: 134:353248

TITLE: Novel heterocyclic compounds and their use as

medicines

INVENTOR(S): Auvin, Serge; Chabrier De Lassauniere, Pierre-Etienne PATENT ASSIGNEE(S): Societe De Conseils De Recherches Et D'applications

Scientifiques (S.C.R.A.S.), Fr.

SOURCE: PCT Int. Appl., 77 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	KIND	DATE	APPLICATION NO.	DATE				
	A2		WO 2000-FR3067	20001103				
W: AE, AG, CR, CU, HU, ID, LU, LV, SD, SE,	AL, AM, AT CZ, DE, DK IL, IN, IS MA, MD, MG SG, SI, SK	C, AU, AZ, E K, DM, DZ, E G, JP, KE, E G, MK, MN, N	BA, BB, BG, BR, BY, BZ, EE, ES, FI, GB, GD, GE, KG, KP, KR, KZ, LC, LK, MW, MX, MZ, NO, NZ, PL, TM, TR, TT, TZ, UA, UG,	GH, GM, HR, LR, LS, LT, PT, RO, RU,				
DE, DK, BJ, CF,	KE, LS, MW ES, FI, FR CG, CI, CM	R, GB, GR, I I, GA, GN, C	SL, SZ, TZ, UG, ZW, AT, IE, IT, LU, MC, NL, PT, GW, ML, MR, NE, SN, TD, FR 1999-13858	SE, TR, BF, TG				
FR 2800737 FR 2809398 FR 2809398 CA 2389685 BR 2000015315 EP 1233962	B1 A1 B3 A1 A	20020726 20010510 20020625 20020828	FR 2000-6535 CA 2000-2389685 BR 2000-15315 EP 2000-974646	20001103 20001103				
R: AT, BE, IE, SI, HU 2002003183 HU 2002003183 JP 2003513092 NZ 518420 AU 781551 RU 2260009 AT 318809	CH, DE, DK LT, LV, FI A2 A3 T A B2 C2 T	2, RO, MK, 0 20030228 20060228 20030408 20040227 20050526 20050910 20060315	GB, GR, IT, LI, LU, NL, CY, AL, TR HU 2002-3183 JP 2001-534805 NZ 2000-518420 AU 2001-12871 RU 2002-114696 AT 2000-974646 EP 2005-77194	20001103 20001103 20001103 20001103 20001103 20001103				

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR PT 1233962 PT 2000-974646 Т 20060731 20001103 ES 2000-974646 ES 2259617 20001103 Т3 20061016 CN 1317278 С 20070523 CN 2000-815926 20001103 US 2002-111994 US 6747024 В1 20040608 20020430 NO 2002002088 Α 20020502 NO 2002-2088 20020502 MX 2002PA04442 Α 20020902 MX 2002-PA4442 20020503 IN 2002MN00604 20050304 IN 2002-MN604 20020513 Α HK 1052706 20070928 HK 2003-105058 Α1 20030714 US 20040180936 20040916 US 2004-803387 Α1 20040316 AU 2005203713 Α1 20050915 AU 2005-203713 20050818 PRIORITY APPLN. INFO.: FR 1999-13858 19991105 Α FR 2000-6535 Α 20000523 EP 2000-974646 A3 20001103 WO 2000-FR3067 W 20001103 US 2002-111994 A3 20020430

OTHER SOURCE(S): MARPAT 134:353248

AB Novel heterocyclic derivs. which have calpain inhibiting and/or reactive oxygen species trapping activity (no data) are reported. Thus, (R)-Trolox was treated with (S)-2-aminobutyrolactone hydrochloride, followed by DIBAL reduction to give (2R)-6-hydroxy-N-[(3S)-2-hydroxytetrahydrofuran-3-yl]-2,5,7,8-tetramethyl-3,4-dihydro-2H-chromene-2-carboxamide.

IT 339007-47-5P 339007-48-6P 339007-52-2P 339007-53-3P 339007-54-4P 339007-55-5P 339007-56-6P 339007-57-7P 339007-76-0P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of novel heterocyclic compds. as calpain inhibitors and trapping agents for reactive oxygen species)

RN 339007-47-5 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-3-methyl-1-[[[(3S)-tetrahydro-2-hydroxy-3-furanyl]amino]carbonyl]butyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 339007-48-6 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 339007-52-2 CAPLUS

CN Propanoic acid, 2,2-dimethyl-, (3S)-tetrahydro-3-[[(2S)-4-methyl-1-oxo-2-[(10H-phenothiazin-2-ylcarbonyl)amino]pentyl]amino]-2-furanyl ester (CA INDEX NAME)

Absolute stereochemistry.

RN 339007-53-3 CAPLUS

CN Butanoic acid, 3,3-dimethyl-, (3S)-tetrahydro-3-[[(2S)-4-methyl-1-oxo-2-[(10H-phenothiazin-2-ylcarbonyl)amino]pentyl]amino]-2-furanyl ester (CA INDEX NAME)

Absolute stereochemistry.

RN 339007-54-4 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(3S)-2-(benzoyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 339007-55-5 CAPLUS

CN Benzeneacetic acid, (3S)-tetrahydro-3-[[(2S)-4-methyl-1-oxo-2-[(10H-phenothiazin-2-ylcarbonyl)amino]pentyl]amino]-2-furanyl ester (CA INDEX NAME)

RN 339007-56-6 CAPLUS

CN L-Phenylalanine, N,N-dimethyl-, (3S)-tetrahydro-3-[[(2S)-4-methyl-1-oxo-2-[(10H-phenothiazin-2-ylcarbonyl)amino]pentyl]amino]-2-furanyl ester (CA INDEX NAME)

Absolute stereochemistry.

RN 339007-57-7 CAPLUS

CN 4-Morpholinecarboxylic acid, (3S)-tetrahydro-3-[[(2S)-4-methyl-1-oxo-2-[(10H-phenothiazin-2-ylcarbonyl)amino]pentyl]amino]-2-furanyl ester (CA INDEX NAME)

Absolute stereochemistry.

RN 339007-76-0 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(2R,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

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NEWS
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                 MARPAT enhanced with FSORT command
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                 CHEMSAFE now available on STN Easy
NEWS
                 Two new SET commands increase convenience of STN
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                 searching
NEWS
        DEC 01
                 ChemPort single article sales feature unavailable
     6
        DEC 12
NEWS
                 GBFULL now offers single source for full-text
                 coverage of complete UK patent families
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- NEWS 8 DEC 17 Fifty-one pharmaceutical ingredients added to PS
- NEWS 9 JAN 06 The retention policy for unread STNmail messages will change in 2009 for STN-Columbus and STN-Tokyo
- NEWS 10 JAN 07 WPIDS, WPINDEX, and WPIX enhanced Japanese Patent Classification Data
- NEWS 11 FEB 02 Simultaneous left and right truncation (SLART) added for CERAB, COMPUAB, ELCOM, and SOLIDSTATEM
- NEWS 12 FEB 02 GENBANK enhanced with SET PLURALS and SET SPELLING

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chain nodes :
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ring nodes :
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chain bonds :
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Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS

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100.0% PROCESSED 9 ITERATIONS 5 ANSWERS

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FULL FILE PROJECTIONS: ONLINE **COMPLETE**
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PROJECTED ITERATIONS: 9 TO 360

PROJECTED ANSWERS: 9 10 360 PROJECTED ANSWERS: 5 TO 234

L2 5 SEA SSS SAM L1

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FULL SEARCH INITIATED 14:11:05 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 157 TO ITERATE

100.0% PROCESSED 157 ITERATIONS 88 ANSWERS

SEARCH TIME: 00.00.01

L3 88 SEA SSS FUL L1

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FULL ESTIMATED COST 185.88 186.10

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Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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L4 20 L3

=> s 14 and calpain 6175 CALPAIN 1323 CALPAINS 6326 CALPAIN (CALPAIN OR CALPAINS) L5 16 L4 AND CALPAIN => s 15 and (py<2005 or ay<2005 or pry<2005) 25138666 PY<2005 5122214 AY<2005 4598644 PRY<2005 10 L5 AND (PY<2005 OR AY<2005 OR PRY<2005) => d 16 1-10 ibib abs hitstr ANSWER 1 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2008:697982 CAPLUS 149:54264 DOCUMENT NUMBER: TITLE: Preparation of 2-hydroxytetrahydrofuran peptide derivatives for use as medicaments Auvin, Serge; Chabrier de Lassauniere, Pierre-Etienne INVENTOR(S): PATENT ASSIGNEE(S): Societe de Conseils de Recherches et d'Applications Scientifiques (S.C.R.A.S.), Fr. U.S., 20pp., Cont.-in-part of U.S. Ser. No. 532,731. SOURCE: CODEN: USXXAM DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 2 PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE

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US	7384	933			В2		2008	0610		US 2	005-	1154	80		2	0050	427	<			
US	2005	0222	045		A1		2005	1006													
FR	2863	268			A1		2005	0610	FR 2003-14368							20031209 <					
FR	2863	268			В1		2006	0224													
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US	7465	721			В2		2008	1216													
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OTHER SOURCE(S): MARPAT 149:54264

GΙ

$$R^4$$
 R^3
 R^1
 $X-(AA)_n-N$
 OR
 R^2

AΒ The invention relates to hydroxytetrahydrofuran derivs. I [R1, R2, R4, R5, R6 are independently H, halo, OH, alkyl, alkoxy, cyano, nitro, amino or acylamino groups; R3 is H, alkyl, acyl, or carbalkoxy; W is a bond, CH2CH2, CH:CH, O, S, NH or alkylimino; X is CO, Y-CO, O-Y-CO (Y is alkylene or haloalkylene), NH, alkylimino, acyl, or carbalkoxy; AA is NR7(CH2)3CHR8CO (R7, R8 are H or alkyl), a natural amino acid, including a natural amino acid whose side chain carries a protected reactive chemical function; n is 2 or 3; R is H, alkyl, or alkanoyl] which have calpain-inhibiting activity and/or activity which traps reactive oxygen species and are useful for treating inflammatory and immunol. diseases, cardiovascular and cerebrovascular diseases, disorders of the central or peripheral nervous system, osteoporosis, muscular dystrophy, proliferative diseases, cataract, rejection reactions following organ transplants and autoimmune and viral diseases. Thus, N-(10H-phenothiazin-2-ylcarbonyl)-L-leucyl-L-leucyl-N1-[(3S)-2hydroxytetrahydrofuran-3-yl]-L-leucinamide, prepared by a multistep sequence which starts with reaction of Cbz-protected L-leucine with (S)-2-amino-4-butyrolactone hydrobromide, showed IC50 \leq 5 μM in the human calpain I inhibition assay.

ΙT 853208-13-6P

CN

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(preparation of hydroxytetrahydrofuran peptide derivs. for use as medicaments)

RN 853208-13-6 CAPLUS

> L-Leucinamide, N-(10H-phenothiazin-2-ylcarbonyl)-L-leucyl-N-[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1075636 CAPLUS

DOCUMENT NUMBER: 143:339689

TITLE: Use of a phenothiazine derivative for preventing

and/or treating hearing loss

INVENTOR(S): Pignol, Bernadette; Puel, Jean-Luc; Auvin, Serge;

Chabrier de Lassauniere, Pierre-Etienne; Wang, Jing

PATENT ASSIGNEE(S): Societe de Conseils de Recherches et d'Applications

Scientifiques S.C.R.A.S., Fr.

SOURCE: PCT Int. Appl., 33 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

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	1933							0321										
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	US 20080275034						2008	1106										
PRIORIT	RIORITY APPLN. INFO.:																	
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OTHER SOURCE(S): MARPAT 143:339689

GΙ

AB The invention discloses the use of a phenothiazine derivative I (R = H, alkyl, aralkyl, etc.) for preparing a medicine for preventing and/or treating hearing loss.

Ι

IT 742104-24-1

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(phenothiazine derivs. for prevention and/or treatment of hearing loss)

RN 742104-24-1 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:492131 CAPLUS

DOCUMENT NUMBER: 143:44075

TITLE: Preparation of peptidyl 3-aminotetrahydro-2-furanol

derivatives for use as drugs

INVENTOR(S): Auvin, Serge; Chabrier De Lassauniere, Pierre Etienne

PATENT ASSIGNEE(S): Societe De Conseils de Recherches et d'Applications

Scientifiques SCRAS, Fr.

SOURCE: Fr. Demande, 53 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

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FR	2863	268			A1 20050610 B1 20060224								20031209 <						
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WO																			
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				•			ID,		•	•				•					
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		NO,	NΖ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,		
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ES	2304	639			Т3		2008	1016		ES 2	004-	8163	63		2	0041	208	<	
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	2005									0.0 _					_				
PRIORIT										FR 2	003-	1436	8		A 2	0031	209	<	
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						US 2		_			W 20041208 < A2 20050426								
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OTHER SOURCE(S): MARPAT 143:44075

GΙ

AB The invention relates to peptide derivs. I [A is (un)substituted carbazolyl, dibenzo[b,f]azepinyl or 10,11-dihydro derivs., phenoxazinyl, phenothiazinyl or phenazinyl; X is CO, Y-CO, O-Y-CO or NR1-Y-CO; Y is alkylene or haloalkylene; R, R1 are independently H, alkyl or acyl; AA is a natural amino acid or derivative; n is 2,3] or their salts which inhibit calpains and lipid peroxidn. and can be used to treat inflammatory, immunol., cardiovascular and other diseases. Thus, N-(10H-phenothiazin-2-ylcarbonyl)-L-leucyl-L-leucyl-N1-[(3S)-2-hydroxytetrahydrofuran-3-yl]-L-leucinamide was prepared by a multistep procedure involving reactions of Cbz-L-Leucine (Cbz = benzyloxycarbonyl), (S)-2-amino-4-butyrolactone hydrobromide, and 2-acetylphenothiazine and treatment with 2N HCl. The product showed IC50 < 5 μ M for inhibition of human calpain I.

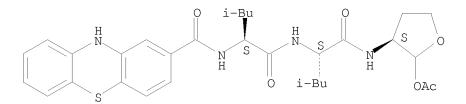
IT 853208-13-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of peptidyl aminotetrahydrofuranol derivs. for use as drugs) ${\rm RN} = 853208 - 13 - 6 \;\; {\rm CAPLUS}$

CN L-Leucinamide, N-(10H-phenothiazin-2-ylcarbonyl)-L-leucyl-N-[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:498592 CAPLUS

DOCUMENT NUMBER: 141:207514

TITLE: Novel dual inhibitors of calpain and lipid

peroxidation

AUTHOR(S): Auvin, Serge; Pignol, Bernadette; Navet, Edith; Pons,

Dominique; Marin, Jean-G.; Bigg, Dennis; Chabrier,

Pierre-E.

CORPORATE SOURCE: Department of Medicinal Chemistry, Ipsen Research

Laboratories, Institut Henri Beaufour, Les Ulis,

91966, Fr.

SOURCE: Bioorganic & Medicinal Chemistry Letters (2004

), 14(14), 3825-3828

CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:207514

GΙ

AB A series of mols. I (R1 = phenothiazin-1-yl, phenothiazin-2-yl, 1-benzyl-5-indolinylamino, etc., R2 = H; R1 = phenothiazin-2-yl, R2 = MeCO) with dual inhibitory activities on calpain and lipid peroxidn. were synthesized. These hybrid compds. were built on the calpain pharmacophore 2-hydroxytetrahydrofuran linked to a set of antioxidants via a L-leucine linker. I (R1 = phenothiazin-2-yl, R2 = MeCO), the most potent in cellular calpain and lipid peroxidn. inhibitions, provided effective protection against glial cell death induced by maitotoxin.

IT 742104-24-1P, BN 82270

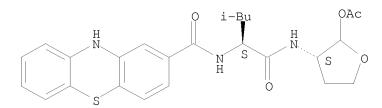
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of (peptidyl)(hydroxy)tetrahydrofurans as dual inhibitors of calpain and lipid peroxidn.)

RN 742104-24-1 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:338525 CAPLUS

DOCUMENT NUMBER: 134:353248

TITLE: Novel heterocyclic compounds and their use as

medicines

INVENTOR(S): Auvin, Serge; Chabrier De Lassauniere, Pierre-Etienne PATENT ASSIGNEE(S): Societe De Conseils De Recherches Et D'applications

Scientifiques (S.C.R.A.S.), Fr.

SOURCE: PCT Int. Appl., 77 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

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WO 2001032654 A2 20010510 WO 2000-FR3067 20001103 <--- WO 2001032654 A3 20010927
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               HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
               LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
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A3 20060228

T 20030408 JP 2001-534805

A 20040227 NZ 2000-518420

B2 20050526 AU 2001-12871

C2 20050910 RU 2002-114696

T 20060315 AT 2000-974646

A1 20060531 EP 2005-77194

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                                                                             20020430 <--
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MX 2002004442 A 20020902 MX 2002-4442
IN 2002MN00604 A 20050304 IN 2002-MN604
HK 1052706 A1 20070928 HK 2003-105058
US 20040180936 A1 20040916 US 2004-803387
AU 2005203713 A1 20050915 AU 2005-203713
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A 19991105 <--
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PRIORITY APPLN. INFO.:
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                                                   EP 2000-974646 A3 20001103 <--

WO 2000-FR3067 W 20001103 <--

US 2002-111994 A3 20020430 <--
                                                                         A3 20020430 <--
                            MARPAT 134:353248
OTHER SOURCE(S):
     Novel heterocyclic derivs, which have calpain inhibiting and/or
AB
     reactive oxygen species trapping activity (no data) are reported. Thus,
      (R)-Trolox was treated with (S)-2-aminobutyrolactone hydrochloride,
     followed by DIBAL reduction to give (2R)-6-hydroxy-N-[(3S)-2-
     hydroxytetrahydrofuran-3-y1]-2,5,7,8-tetramethyl-3,4-dihydro-2H-chromene-2-
     carboxamide.
     339007-48-6P 339007-52-2P 339007-53-3P
ΙT
     339007-55-5P 339007-56-6P 339007-76-0P
     RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
         (preparation of novel heterocyclic compds. as calpain inhibitors
         and trapping agents for reactive oxygen species)
     339007-48-6 CAPLUS
RN
CN
     10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[(2S,3S)-2-
```

(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 339007-52-2 CAPLUS

CN Propanoic acid, 2,2-dimethyl-, (3S)-tetrahydro-3-[[(2S)-4-methyl-1-oxo-2-[(10H-phenothiazin-2-ylcarbonyl)amino]pentyl]amino]-2-furanyl ester (CA INDEX NAME)

Absolute stereochemistry.

RN 339007-53-3 CAPLUS

CN Butanoic acid, 3,3-dimethyl-, (3S)-tetrahydro-3-[[(2S)-4-methyl-1-oxo-2-[(10H-phenothiazin-2-ylcarbonyl)amino]pentyl]amino]-2-furanyl ester (CA INDEX NAME)

Absolute stereochemistry.

RN 339007-55-5 CAPLUS

CN Benzeneacetic acid, (3S)-tetrahydro-3-[[(2S)-4-methyl-1-oxo-2-[(10H-phenothiazin-2-ylcarbonyl)amino]pentyl]amino]-2-furanyl ester (CA INDEX NAME)

RN 339007-56-6 CAPLUS

CN L-Phenylalanine, N,N-dimethyl-, (3S)-tetrahydro-3-[[(2S)-4-methyl-1-oxo-2-[(10H-phenothiazin-2-ylcarbonyl)amino]pentyl]amino]-2-furanyl ester (CA INDEX NAME)

Absolute stereochemistry.

RN 339007-76-0 CAPLUS

CN 10H-Phenothiazine-2-carboxamide, N-[(1S)-1-[[[(2R,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1999:233912 CAPLUS

DOCUMENT NUMBER: 130:252373

TITLE: Preparation and formulation of O-containing

heterocyclic derivatives as cysteine protease

inhibitors

INVENTOR(S): Usui, Yoshihiro; Masuda, Hirokazu; Ando, Naoko; Nakao,

Akira; Ando, Ryoichi; Yoshii, Narihiko; Saito,

Ken-ichi

PATENT ASSIGNEE(S): Mitsubishi Chemical Corporation, Japan

SOURCE: PCT Int. Appl., 115 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE _____ ____ _____ WO 9916761 Α1 19990408 WO 1998-JP4420 19980930 <--W: CA, CN, KR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE JP 11171881 19990629 JP 1998-277586 19980930 <--PRIORITY APPLN. INFO.: JP 1997-266034 A 19970930 <--OTHER SOURCE(S): MARPAT 130:252373 GΙ

The title compds. I [R1 represents optionally substituted C6-14 aryl or an optionally substituted heterocycle residue; R2 represents hydrogen or C1-10 alkyl optionally substituted by C6-14 aryl; R3 represents hydrogen or R4CO (R4 represents C1-10 alkyl); and A represents C1-3 alkylene optionally substituted by C1-3 alkyl] are prepared I are useful as cysteine protease inhibitors excellent in oral absorbability, migration to tissues, and can easily pass through the cell membrane, etc. $(3S)-3-[(S)-2-(4,6-\text{dimethoxy-}2-\text{pyrimidinyl})\text{amino-}4-\text{methylvalerylamino}]-2-tetrahydrofuranol in vitro showed IC50 of 1.27 μM against calpain.}$

IT 221683-02-9P 221683-09-6P 221683-12-1P 221683-20-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of O-containing heterocyclic derivs. as cysteine protease inhibitors)

RN 221683-02-9 CAPLUS

CN Pentanamide, N-[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]-2-[(4,6-dimethoxy-2-pyrimidinyl)amino]-4-methyl-, (2S)- (CA INDEX NAME)

CN Pentanamide, N-[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[[2-nitro-4-(trifluoromethyl)phenyl]amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 221683-12-1 CAPLUS

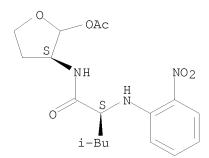
CN Pentanamide, N-[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]-2-(2-benzoxazolylamino)-4-methyl-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 221683-20-1 CAPLUS

CN Pentanamide, N-[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(2-nitrophenyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:246624 CAPLUS

DOCUMENT NUMBER: 129:32318

ORIGINAL REFERENCE NO.: 129:6761a,6764a

TITLE: Cataract curative medicine.

INVENTOR(S): Watanabe, Toshiaki; Yoshii, Shigehiko; Saito, Kenichi;

Ando, Ryoichi

PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 74 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.		DATE	APPLICATION NO.		DATE		
	JP 10101557 ORITY APPLN. INFO.: CR SOURCE(S):	A MARPAT	129:32318	JP 1997-197216 JP 1996-208540	 A	19970723 < 19960807 <		
GI AB	For diagram(s), see printed CA Issue. The cataract curative medicine has an effective component of structure (I), its salt, solvate, or hydrate, where R1 is R4-C0-, R4-O-C0-, or R4-S02- (R4: C1-20 alkyl), R2 is C1-C6 alkyl, R3 is H or R5-C0- (R5: C1-10 alkyl), and A is C1-3 alkylene. Thus, 998 mg N-phenylsulfonyl-L-leucine was react with 6 mL S02C12 and 443 mg homoserine lactone to give (S)-3-[(S)-4-methyl-2-phenylsulfonylaminovalerylamino]-2-tetrahydrofuranone 861 mg, which was reacted with hydrogendiisobutylaluminum to give (3S)-3-[(S)-4-Methyl-2-phenylsulfonylaminovalerylamino]-2-tetrahydrofuranol 191 mg, which showed strong calpain inhibition							
IT		39-7DE 40-0DE 41-1DE 42-2P hydrat 5-50-2P hydrat or hydrat or hydrat or, solv s, solv s, solv s, solv s, solv s, solv	2, salts, sol 2, salts, sol 201155-44-4E tes 201155-44 vates, or hydroxides 201155-52-4E tes 201155-52 vates 201155- vates, or hydroxides, or hydrox	vates, or hydrates vates, or hydrates Pr. 2-4P 201155-46-6P drates 201155-47-7P Pr. 2-4P 201155-54-6DP drates 201155-58-0P drates 201155-60-4P drates 201157-12-2P				
RN CN	(cataract curati 167765-43-7 CAPLUS Carbamic acid, [(18	; ;) -1-[[(2S,3S)-2-(a	acetyloxy)tetrahydro- -, phenylmethyl este		9CI) (CA		

RN 201155-39-7 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-, tetradecyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-39-7 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-, tetradecyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-40-0 CAPLUS

CN Pentadecanamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-(acetylox

furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-40-0 CAPLUS

CN Pentadecanamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-41-1 CAPLUS

CN Hexadecanamide, N-[(1S)-1-[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-41-1 CAPLUS

CN Hexadecanamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-42-2 CAPLUS

CN Benzamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-2-fluoro- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-44-4 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-2-[(hexadecylsulfonyl)amino]-4-methyl-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-44-4 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-2-[(hexadecylsulfonyl)amino]-4-methyl-, (2S)- (CA INDEX NAME) Absolute stereochemistry.

RN 201155-46-6 CAPLUS

CN Benzamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-4-chloro- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-47-7 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[[(2,4,6-trimethylphenyl)sulfonyl]amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-47-7 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[[(2,4,6-trimethylphenyl)sulfonyl]amino]-, (2S)- (CA INDEX NAME)

RN 201155-49-9 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-2-[[(4-methoxyphenyl)sulfonyl]amino]-4-methyl-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-50-2 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(2-naphthalenylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-52-4 CAPLUS

CN Heptadecanamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

RN 201155-52-4 CAPLUS

CN Heptadecanamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-54-6 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-, tridecyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-54-6 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-, tridecyl ester (9CI) (CA INDEX

NAME)

Absolute stereochemistry.

RN 201155-58-0 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(tetradecylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-58-0 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(tetradecylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-60-4 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(pentadecylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-60-4 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(pentadecylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201157-12-2 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(phenylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

RN 201157-12-2 CAPLUS

Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-CN [(phenylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN

201157-68-8 CAPLUS Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-2-[[(4- $^{\circ}$ CN chlorophenyl)sulfonyl]amino]-4-methyl-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 207500-74-1 CAPLUS

Pentanamide, 4-methyl-2-[(phenylsulfonyl)amino]-N-[(2S,3S)-tetrahydro-2-(1-methyl-2-[(phenylsulfonyl)amino]-N-[(2S,3S)-tetrahydro-2-(1-methyl-2-[(phenylsulfonyl)amino]-N-[(2S,3S)-tetrahydro-2-(1-methyl-2-[(phenylsulfonyl)amino]-N-[(2S,3S)-tetrahydro-2-(1-methyl-2-[(phenylsulfonyl)amino]-N-[(2S,3S)-tetrahydro-2-(1-methyl-2-[(phenylsulfonyl)amino]-N-[(2S,3S)-tetrahydro-2-(1-methyl-2-[(phenylsulfonyl)amino]-N-[(2S,3S)-tetrahydro-2-(1-methyl-2-[(2S,3S)-tetrahydro-2-[(2S,3S)CN oxopropoxy)-3-furanyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

207500-75-2 CAPLUS RN

Pentanamide, 2-[[[4-(1,1-dimethylethyl)phenyl]sulfonyl]amino]-4-methyl-N-CN [(2S,3S)-tetrahydro-2-(1-oxopropoxy)-3-furanyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 207500-76-3 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-, heptadecyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 207500-76-3 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-, heptadecyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L6 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1998:102857 CAPLUS

128:167712 DOCUMENT NUMBER:

ORIGINAL REFERENCE NO.: 128:33065a,33068a

TITLE: Preparation of oxygenic heterocyclic derivatives of

amino acid amides as cysteine protease inhibitors

Ando, Ryoichi; Masuda, Hirokazu; Aritomo, Keiichi; INVENTOR(S):

Yoshii, Narihiko; Saito, Ken-Ichi

PATENT ASSIGNEE(S): Mitsubishi Chemical Corporation, Japan

SOURCE: PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND APPLICATION NO. DATE DATE ____ _____ WO 9804539 19980205 WO 1997-JP2598 A1 19970728 <--

W: CA, CN, JP, KR, US

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

PRIORITY APPLN. INFO.: JP 1996-199037 A 19960729 <--

OTHER SOURCE(S): MARPAT 128:167712

GΙ

AB Oxygenic heterocyclic derivs. of general formula [I; R1 = R4CO, R4O2C, R4SO2 (R4 = straight-chain C11-20 alkyl); R2 = C1-10 alkyl optionally substituted by C6-14 aryl; R3 = H, R5CO (wherein R5 = C1-10 alkyl); A =C1-3 alkylene optionally substituted by C1-3 alkyl], salts thereof, and solvates or hydrates thereof are prepared These compds. exhibit a potent inhibitory activity against cysteine proteases such as calpain, papain, cathepsin B, cathepsin H, cathepsin L, calpain, and interleukin 1β -converting enzyme and are excellent in absorbability through oral administration, tissue transportability, and cell membrane permeability and are useful for the treatment of muscular dystrophy, muscular atrophy, myocardial infarction, stroke, Alzheimer's disease, disorders of cognition and motor disorders in head trauma, multiple sclerosis, neuropathy of peripheral nerve, cataract, allergy, hepatitis siderans, osteoporosis, hypercalcemia, breast cancer, prostate cancer, prostatomegaly, inhibitors of cancer proliferation and metastasis, and blood platelet aggregation inhibitors. Thus, (3S)-3-[(S)-2-(tert-butoxycarbonylamino)-4-methylvalerylamino]-2tetrahydrofuranone was stirred with 4 N HCl in EtOAc at room temperature for 45 min and then acylated by heptadecanoyl chloride in the presence of Et3N in CH2Cl2 at room temperature overnight to give (3S)-3-[(S)-2-(heptadecanoylamino)-4-methylvalerylamino]-2tetrahydrofuranone, which was reduced by LiAlH4 in THF at -68° for 1 h to give (3S)-[(N-heptadecanoyl-L-leucinyl)amino]-2-tetrahydrofuranol (II; R = heptadecanoyl). The latter compound and II (R = heptadecanoyl)pentadecylsulfonyl) in vitro showed IC50 of 1.05 and 0.09 μM , resp., against m-calpain. ΤТ

201155-39-7P 201155-40-0P 201155-41-1P

Absolute stereochemistry.

RN 201155-40-0 CAPLUS
CN Pentadecanamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-41-1 CAPLUS
CN Hexadecanamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

RN 201155-44-4 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-2-[(hexadecylsulfonyl)amino]-4-methyl-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-52-4 CAPLUS

CN Heptadecanamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-54-6 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-, tridecyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-56-8 CAPLUS

CN Carbamic acid, [1-[[[2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-, pentadecyl ester, [2S-[2 α ,3 α (R*)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-58-0 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(tetradecylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-60-4 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(pentadecylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 202814-98-0 CAPLUS

CN Dodecanamide, N-[(1S)-1-[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furany1]amino]carbony1]-3-methylbuty1]- (CA INDEX NAME)

Absolute stereochemistry.

RN 202815-01-8 CAPLUS

CN Octadecanamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:65808 CAPLUS

DOCUMENT NUMBER: 128:102004

ORIGINAL REFERENCE NO.: 128:19985a, 19988a

TITLE: Preparation of hydroxytetrahydrofuran derivatives as

remedies for ischemic diseases

INVENTOR(S): Yoshii, Narihiko; Saito, Ken-ichi; Kawasumi, Hisashi;

Anabuki, Jun; Ando, Ryoichi

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan

SOURCE: PCT Int. Appl., 117 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND I	DATE	APPLICATION NO.	DATE
WO 9801130 W: US	A1	19980115	WO 1997-JP2378	19970709 <
RW: AT, BE, CH, JP 10101558 EP 925786 R: DE, ES, FR,	A A1	19980421	, GB, GR, IE, IT, LU, JP 1997-179756 EP 1997-930735	MC, NL, PT, SE 19970704 < 19970709 <
PRIORITY APPLN. INFO.:	02, 11		JP 1996-180783 JP 1996-207011 WO 1997-JP2378	A 19960710 < A 19960806 < W 19970709 <

OTHER SOURCE(S): MARPAT 128:102004

GΙ

The title compds. [I; R1 = R4CO, R4OCO, R4SO2, etc.; R2 = alkyl; R3 = H, acyl; R4 = (un)substituted C1-20 alkyl or C6-14 aryl, etc.; A = alkylene] are prepared I are efficacious in treating ischemic diseases, for example, ischemic brain diseases, cerebral stroke, cerebral thrombosis, cerebral embolism and myocardial infarction. Thus, compound (II; X = CO) (preparation

given) was reduced by (Me2CHCH2)2AlH to give 46% the title compound II (X = CHOH), which showed IC50 of 0.62 μM against calpain. ΤТ 167765-43-7P 201155-39-7P 201155-41-1P 201155-42-2P 201155-44-4P 201155-45-5P 201155-46-6P 201155-47-7P 201155-48-8P 201155-49-9P 201155-50-2P 201155-54-6P 201155-58-0P 201155-60-4P 201157-09-7P 201157-10-0P 201157-11-1P 201157-12-2P 201157-68-8P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of hydroxytetrahydrofuran derivs. as remedies for ischemic diseases) 167765-43-7 CAPLUS RN CN Carbamic acid, [(1S)-1-[[(2S,3S)-2-(acetyloxy)tetrahydro-3furanyl]amino]carbonyl]-3-methylbutyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-39-7 CAPLUS
CN Carbamic acid, [(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-, tetradecyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-41-1 CAPLUS CN Hexadecanamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-42-2 CAPLUS

CN Benzamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-2-fluoro- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-44-4 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-2-[(hexadecylsulfonyl)amino]-4-methyl-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-45-5 CAPLUS

CN Propanoic acid, 2,2-dimethyl-, (2S,3S)-tetrahydro-3-[[(2S)-4-methyl-1-oxo-2-[(phenylsulfonyl)amino]pentyl]amino]-2-furanyl ester (CA INDEX NAME)

RN 201155-46-6 CAPLUS

CN Benzamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-4-chloro- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-47-7 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[[(2,4,6-trimethylphenyl)sulfonyl]amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-48-8 CAPLUS

CN Propanoic acid, 2,2-dimethyl-, (2S,3S)-3-[[(2S)-2-[[[4-(1,1-dimethylethyl)phenyl]sulfonyl]amino]-4-methyl-1-oxopentyl]amino]tetrahydro-2-furanyl ester (CA INDEX NAME)

RN 201155-49-9 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-2-[[(4-methoxyphenyl)sulfonyl]amino]-4-methyl-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-50-2 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(2-naphthalenylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-54-6 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-, tridecyl ester (9CI) (CA INDEX NAME)

RN 201155-58-0 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(tetradecylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-60-4 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(pentadecylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201157-09-7 CAPLUS

CN Pentadecanamide, N-[(1S)-1-[[[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 201157-10-0 CAPLUS

CN Hexadecanamide, N-[(1S)-1-[[[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 201157-11-1 CAPLUS

CN Heptadecanamide, N-[(1S)-1-[[[(3S)-2-(acetyloxy)tetrahydro-3-furany1]amino]carbony1]-3-methylbuty1]- (CA INDEX NAME)

Absolute stereochemistry.

RN 201157-12-2 CAPLUS

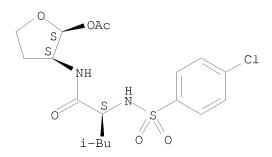
CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(phenylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201157-68-8 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-2-[[(4-chlorophenyl)sulfonyl]amino]-4-methyl-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:65807 CAPLUS

DOCUMENT NUMBER: 128:102386

ORIGINAL REFERENCE NO.: 128:20073a,20076a

TITLE: Preparation and formulation of amino acid derivatives

for the prevention and treatment of neurodegenerative

diseases

INVENTOR(S): Yoshii, Narihiko; Saito, Ken-ichi; Ando, Ryoichi

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan

SOURCE: PCT Int. Appl., 118 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT NO.		KINI	D DATE	APPLICATION NO.	DATE
WO	9801129		A1	19980115	WO 1997-JP2377	19970709 <
	W: US					
	RW: AT,	BE, C	H, DE,	DK, ES, FI,	FR, GB, GR, IE, IT,	LU, MC, NL, PT, SE
JP	10101560		A	19980421	JP 1997-179757	19970704 <
PRIORITY	Y APPLN. I	INFO.:			JP 1996-180784	A 19960710 <

JP 1996-200757 A 19960730 <--JP 1996-200758 A 19960730 <--JP 1996-207012 A 19960806 <--

OTHER SOURCE(S):
GI

MARPAT 128:102386

R1-NH-CH-CO-NH

AB The title compds. I [R1 represents R4CO, etc.; R4 represents alkyl, aryl or cycloalkyl; R2 represents alkyl; R3 represents hydrogen or acyl; and A represents alkylene] are prepared These drugs are efficacious in preventing or treating neurodegenerative diseases, for example, Alzheimer's disease, diseases caused by demyelination in nerve cells, such as multiple sclerosis and neuropathy, and disorders accompanying cephalic traumas, such as consciousness disorder and motility disorder. $(3S)-3-((S)-4-Methyl-2-phenylsulfonylaminovalerylamino)-2-tetrahydrofuranol in vitro showed IC50 of 0.62 \,\mu\text{M} against calpain.$

Calpain.

IT 167765-43-7P 201155-15-9P 201155-39-7P 201155-40-0P 201155-41-1P 201155-42-2P 201155-43-3P 201155-44-4P 201155-45-5P 201155-46-6P 201155-47-7P 201155-48-8P 201155-49-9P 201155-50-2P 201155-52-4P 201155-54-6P 201155-56-8P 201155-58-0P 201155-60-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of amino acid derivs. for prevention and treatment of neurodegenerative diseases)

RN 167765-43-7 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-15-9 CAPLUS

CN Pentanamide, N-[(3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-

[(phenylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-39-7 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-, tetradecyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-40-0 CAPLUS

CN Pentadecanamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

RN 201155-41-1 CAPLUS

CN Hexadecanamide, N-[(1S)-1-[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-42-2 CAPLUS

CN Benzamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-2-fluoro- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-43-3 CAPLUS

CN Benzamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-4-fluoro- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-44-4 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-2-[(hexadecylsulfonyl)amino]-4-methyl-, (2S)- (CA INDEX NAME)

RN 201155-45-5 CAPLUS

CN Propanoic acid, 2,2-dimethyl-, (2S,3S)-tetrahydro-3-[[(2S)-4-methyl-1-oxo-2-[(phenylsulfonyl)amino]pentyl]amino]-2-furanyl ester (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-46-6 CAPLUS

CN Benzamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-4-chloro- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-47-7 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[[(2,4,6-trimethylphenyl)sulfonyl]amino]-, (2S)- (CA INDEX NAME)

RN 201155-48-8 CAPLUS

CN Propanoic acid, 2,2-dimethyl-, (2S,3S)-3-[[(2S)-2-[[[4-(1,1-dimethylethyl)phenyl]sulfonyl]amino]-4-methyl-1-oxopentyl]amino]tetrahydro-2-furanyl ester (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-49-9 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-2-[[(4-methoxyphenyl)sulfonyl]amino]-4-methyl-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-50-2 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(2-naphthalenylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

RN 201155-52-4 CAPLUS

CN Heptadecanamide, N-[(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-54-6 CAPLUS

CN Carbamic acid, [(1S)-1-[[[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-, tridecyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-56-8 CAPLUS

CN Carbamic acid, [1-[[[2-(acetyloxy)tetrahydro-3-furanyl]amino]carbonyl]-3-methylbutyl]-, pentadecyl ester, [2S-[2α , 3α (R*)]]- (9CI) (CA INDEX NAME)

RN 201155-58-0 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(tetradecylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

RN 201155-60-4 CAPLUS

CN Pentanamide, N-[(2S,3S)-2-(acetyloxy)tetrahydro-3-furanyl]-4-methyl-2-[(pentadecylsulfonyl)amino]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT:

6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> fil stng COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 68.36 254.46

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL ENTRY SESSION

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=>

---Logging off of STN---

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS

SINCE FILE TOTAL SESSION 256.21

FULL ESTIMATED COST

1.75

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

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ENTRY SESSION
0.00 -8.2

-8.20

STN INTERNATIONAL LOGOFF AT 14:29:48 ON 04 FEB 2009